SAS-493-18819-F1

Advanced

Linear to Circular Polarizer, U Band, 49 GHz, Ø 0.188”

Description:

Model SAS-493-18819-F1 is an U band, linear to circular polarizer that operates at 49 GHz with a ±3.3 GHz bandwidth. The polarizer offers a typical insertion loss of 0.5 dB, a typical axial ratio of 1.1, and a typical return loss of 20 dB. The polarizer is fixed and can be used for either right-handed or left-handed polarization based on the direction of the input signal. The polarizer is often combined with SAGE Millimeter’s rectangular to circular waveguide transition (**SWT-19188-SB**) and WR-19 conical horn antenna (**SAC-2309-188-S2**) for various system applications.

Features:

- Circular Waveguide Interface
- Low Insertion Loss
- Good Axial Ratio
- LHCP or RHCP

Applications:

- Antenna Ranges
- Waveguide Polarization Selection
- Radar Systems
- Communication Systems

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency Range*	45.7 GHz	49.0 GHz	52.3 GHz
Insertion Loss		0.5 dB	
Axial Ratio		1.1	
Return Loss		20 dB	
Specification Temperature		+25 °C	
Operating Temperature	-40 °C		+85 °C

*Note: Actual frequency can be extended to cover 40 to 55 GHz with slightly axial ratio performance degradation.

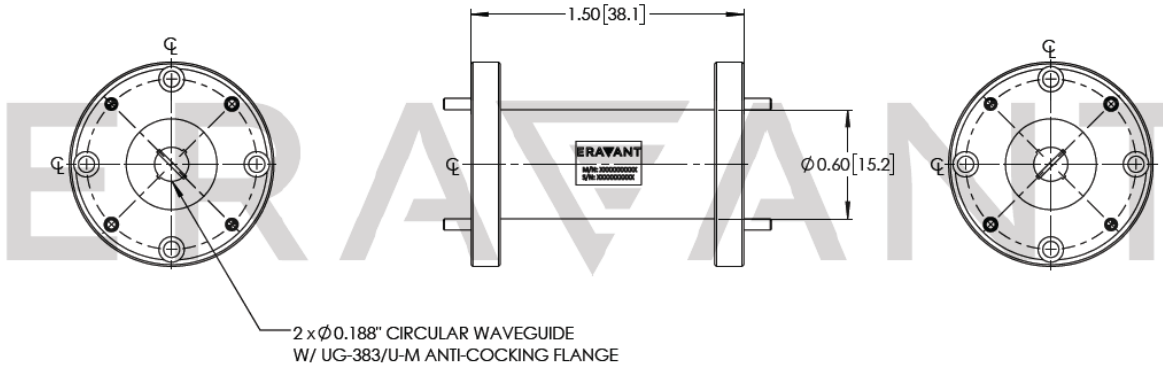
Mechanical Specifications:

Item	Specification
Waveguide	0.188” Dia Circular Waveguide with UG-383/U-M Anti-Cocking Flange
Body Material	Brass
Finish	Gold Plated
Weight	1.4 Oz
Insertion Length	1.5”
Outline	AS-FUB-188-A

www.eravant.com | 501 Amapola, Torrance, CA 90501
Phone: 424-757-0168 | Fax: 424-757-0188 | Email: support@eravant.com

Linear to Circular Polarizer, U Band, 49 GHz, Ø 0.188”

Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- The Polarizer is offered as LHCP. However, it can be used as RHCP by reversing the input and output ports.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Foreign objects in the waveguide will affect the polarizer performance and may damage the polarizer.

www.eravant.com | 501 Amapola, Torrance, CA 90501
Phone: 424-757-0168 | Fax: 424-757-0188 | Email: support@eravant.com